CLAIM AMENDMENTS

Please amend claims 1, 5 and 6 and add new claims 8-14 so that the claims read as follows.

1. (Currently Amended) A sensor for detecting a temperature of a fluid in the hollow space of a housing, comprising a temperature measuring element (~~1~~, 1') connectable to an evaluation device via a plug arrangement and arranged in a protective tube (11) of a sensor housing (12), which is closed on one end, and a connection piece firmly attached to the sensor housing (12), the protective tube (11) being adapted to project at least with its tip into an opening of the hollow space-housing where it can be sealed off from outside atmosphere using an elastic O-ring, wherein the measuring element (~~1~~, 1') is a surface-mountable component (SMD), which is arranged in a tip region of the protective tube (11) and connected to contact pads (45, 46) on one end of a longitudinally extending circuit board (2) ~~and is~~ ,wherein the contact pads (45, 46) are connected via strip conductors to the plug arrangement positioned on an opposite end of the circuit board, wherein the plug arrangement is surrounded by a screw sheath (3) of the sensor housing (12), which is firmly connected to the protective tube (11) and which is provided with a threading (13) adapted to project into the hollow space-housing for purposes of mounting, the screw sheath (3) having a flange (14) extending in a radial direction, which provides a press-on surface for an O-ring for sealing off an opening of the hollow space-housing.

2. (Original) The sensor according to claim 1, wherein the screw sheath (3) is provided with an annular edge (15) arranged coaxially to the threading, on a side of the sheath (3) facing away from the protective tube (11), for attaching the connection piece (4).

3. (Original) The sensor according to claim 2, wherein the connection piece (4) is stopped in its plug-in position against axial shifting by an annular flange of the edge (15).

4. (Original) The sensor according to claim 1, wherein the connection piece (4) is secured against turning relative to the screw sheath (3) of the sensor housing (12) by locking beads and/or recesses.

5. (Currently amended) The sensor according to claim 1, wherein the measurement element (~~1~~, 1') is embedded in heat-conducting paste.

6. (Currently amended) The sensor according to claim 1, wherein the measurement element (~~1~~, 1') is constructed as a temperature-dependent resistor.

7. (Original) The sensor according to claim 1, wherein the sensor is adapted for measuring a temperature in a flowing liquid or gaseous medium.

8. (New) A sensor for detecting a temperature of a fluid in the hollow space of a housing, comprising a temperature measuring element (1) connectable to an evaluation device via a plug arrangement and arranged in a protective tube (11) of a sensor housing (12), which is closed on one end, and a connection piece firmly attached to the sensor housing (12), the protective tube (11) being adapted to project at least with its tip into an opening of the hollow space-housing where it can be sealed off from outside atmosphere using an elastic O-ring, wherein the measuring element (1) is a component which is arranged in a tip region of the protective tube (11) and is connected via connection wires (21, 22) to contact pads (23, 24) on one end of a longitudinally extending circuit board (2), wherein the contact pads (23, 24) are connected via strip conductors to the plug arrangement positioned on an opposite end of the circuit board, wherein the plug arrangement is surrounded by a screw sheath (3) of the sensor housing (12), which is firmly connected to the protective tube (11) and which is provided with a threading (13) adapted to project into the hollow space-housing for purposes of mounting, the screw sheath (3) having a flange (14) extending in a radial direction, which provides a press-on surface for an O-ring for sealing off an opening of the hollow space-housing.

9. (New) The sensor according to claim 8, wherein the screw sheath (3) is provided with an annular edge (15) arranged coaxially to the threading, on a side of the sheath (3) facing away from the protective tube (11), for attaching the connection piece (4).

10. (New) The sensor according to claim 9, wherein the connection piece (4) is stopped in its plug-in position against axial shifting by an annular flange of the edge (15).

11. (New) The sensor according to claim 8, wherein the connection piece (4) is secured against turning relative to the screw sheath (3) of the sensor housing (12) by locking beads and/or recesses.

12. (New) The sensor according to claim 8, wherein the measurement element (1) is embedded in heat-conducting paste.

13. (New) The sensor according to claim 8, wherein the measurement element (1) is constructed as a temperature-dependent resistor.

14. (New) The sensor according to claim 8, wherein the sensor is adapted for measuring a temperature in a flowing liquid or gaseous medium.